

AMENDMENTS TO THE SPECIFICATION:

Please add the following paragraph beginning at line 2, page 1, before the
“BACKGROUND OF THE INVENTION”:

Cross-Reference to Related Application

This application claims priority to and all the benefits of United States Provisional
Application No. 60/396,431, filed on July 15, 2002.

Please replace paragraph [0002] with the following rewritten paragraph:

[0002] Internal combustion engines for automotive vehicles generate heat from the combustion of fuel and friction between the many moving components within the engine, such as the between the engine block and the pistons. An engine-driven impeller propels coolant fluid between flow paths formed within the engine block and a heat sink or radiator exposed to ambient airflow passing over the surface of the radiator for carrying the heat away from the engine block. Hoses are typically used to carry coolant fluid between the engine block and the radiator.

Please replace paragraph [0019] with the following rewritten paragraph:

[0019] A drive assembly 50 is supported within a gear housing 51 fixedly secured to the housing 12 for moving and maintaining the vane 36 between the first [[16]] and [[18]] second positions. The drive assembly 50 includes an electric direct current motor 52 for driving a worm 54 and worm gear 56 arrangement. Rotational movement of the worm 54 by the motor 52 causes rotational movement of the worm gear 56. In a preferred aspect of the present invention, the direct current motor 52 includes a shaft coupled to a pinion gear 70 which in turn rotates planetary gears 72 carried by a carrier 74 and ring 71 transferring rotational motion to the worm gear 56. A clutch generally indicated at 57 is coupled between the worm gear 56 and the base 38 of the vane 36 for transferring rotational movement of the

worm gear 56 to the vane 36. The clutch also allows relative movement or slip between the worm gear 56 and vane 36 for relieving stress on the motor 52 when the vane 36 stops when engaging the first and second chamber walls 16, 18. Preferably, the clutch 57 includes a clutch housing 58, a shaft 60, a friction disc 62, and a spring disc 64. The clutch housing 58 is secured to the base 38 of the vane 36. The shaft 60 extends axially from the clutch housing 58 through a center bore in the worm gear 56. The friction disc 62 and the spring disc 64 are axially compressed between the clutch housing 58 and the worm gear 56. The friction disc 62 is keyed with the clutch housing 58 for pivotal movement therewith. The spring disc 64 axially forces the friction disc 62 toward the worm gear 56 so that pivotal movement of the worm gear 56 is transferred to the vane 36 by frictional torque created between the friction disc 62 and the worm gear 56. The frictional torque created by the axial compression of the spring disc 64 is predetermined and is generally less than the amount of torque associated with occasional sudden engagement of the vane 36 with the first or second chamber walls 18, 20.

Please replace the Abstract with the rewritten Abstract attached herewith on a separate page as Attachment 1.